

PRIMERGY TX150 S4

System configurator and order-information guide

December 2005

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Change report



PRIMERGY Server

Instructions

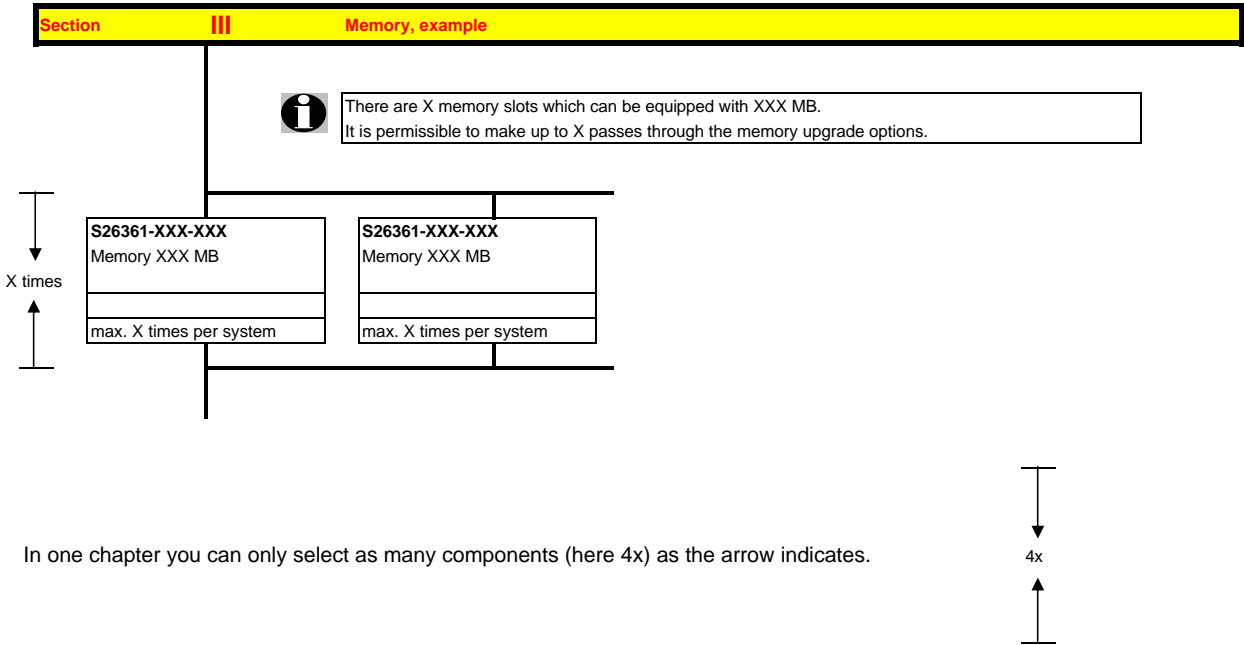
This document contains basic product and configuration information that will enable you to configure your system via PC-/ System-Architect.

Only these tools will ensure a fast and proper configuration of your PRIMERGY server or your complete PRIMERGY Rack system.

You can configure your individual PRIMERGY server in order to adjust your specific requirements.

The System configurator is divided into several chapters that are identical to the current price list and PC-/ System-Architect

Please follow the lines. If there is a junction, you can choose which way or component you would like to take. Go through the configurator by following the lines from the top to the bottom.



Please note that there are information symbols which indicate necessary information.



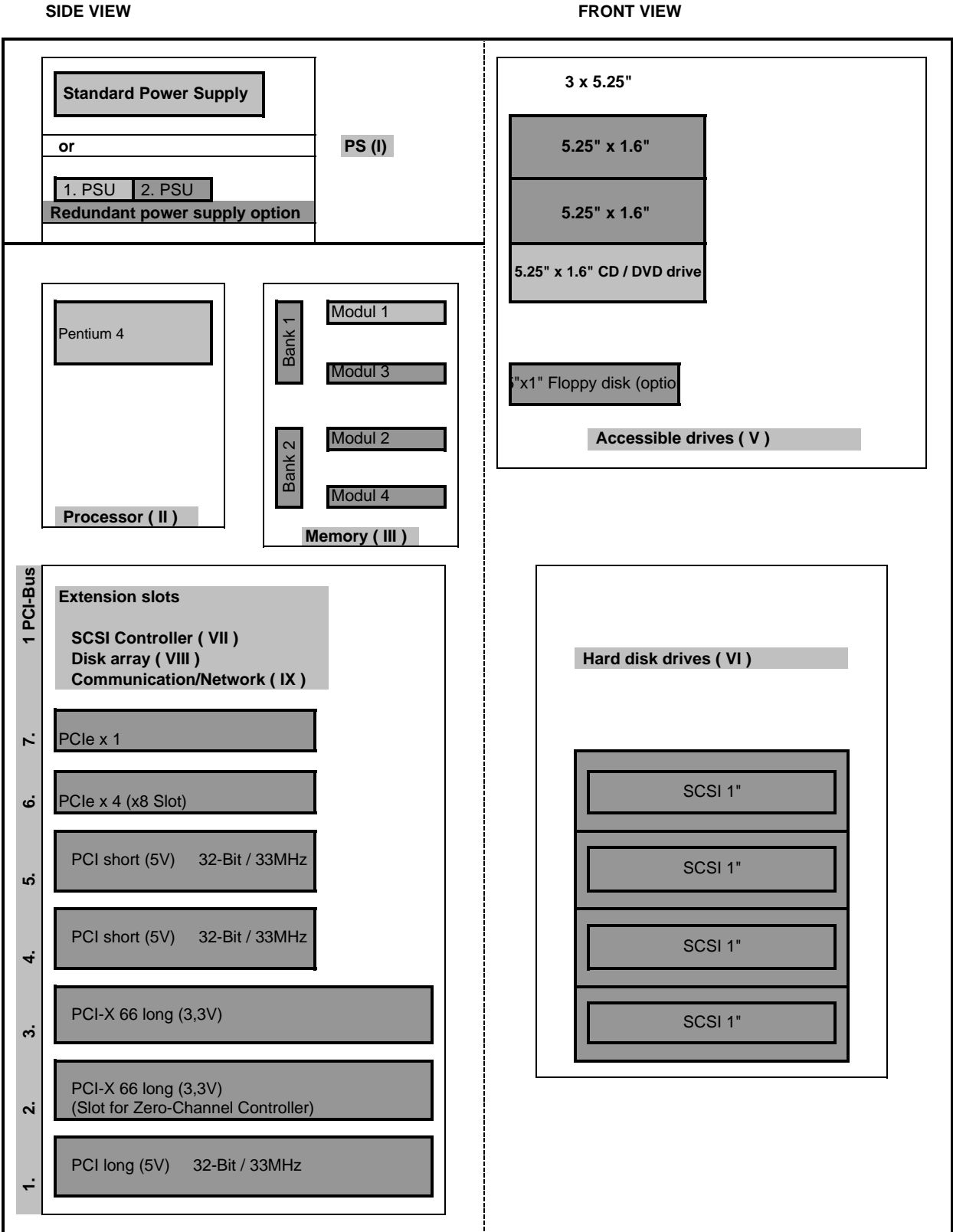
Further information in the internet see:

- <http://www.primergy.com> (internet)
- <http://extranet.fujitsu-siemens.com/primergy> (extranet)



Prices and availability see price list and PC-/ System-Architect
Subject to change and errors excepted

Configuration diagram PRIMERGY TX150 S4

System unit (I)



Key:

-  Included in basic unit
-  Option

Start PRIMERGY TX150 S4


SW Configurator IA32

with OEM-Software
for PRIMERGY Server

without OEM-Software
for PRIMERGY Server

VMware-Software
 - VCMS VirtualCenter Management Server
 - GSX Server and GSX Virtual Infrastructure Node
 - P2V Assistant Enterprise Edition

Later use of OEM operating system software is not allowed, apart from few VMware add-ons

 For all SW products please refer to the corresponding software configurator accessible via the Extranet under Configuration & Tools, -All configurations, -Software, URL see below.

Microsoft - Software: **)
 - Small Business Server 2003
 - Windows Server 2003, Web Edition (only English) Standard Edition Enterprise Edition
 - Additional loose Client-Access-Licenses (CALs) (not for Web Edition)

OES/NetWare-Software *)**
 - NetWare

PRIMECLUSTER *)
 - Clustering
 - Load Balancing


Linux - Software: **)
 - SUSE Linux Enterprise Server
 - SUSE Professional Linux
 - Red Hat Enterprise Linux

SCO - Software: **)
 - SCO OpenServer
 - SCO UnixWare


CITRIX-Software für Windows: W-MF
 - Presentation Server
 LoadBalancing
 Additional User Licences


Manageability Software: V)**
 - RemoteView Software
 - RemoteView Service Board
 - RemoteDeploy
 - Terminal Server Deploy
 - vPMS 2005std
 - Altiris Server Deployment

Backup-Software / Application-Software: U
 - ARCserve
 - openSM2

 Details eg. version numbers are published in the separate SW-Configurator

 *) Pay attention to the PRIMECLUSTER release and ordering information in the Extranet under <http://extranet.fujitsu-siemens.com/primecluster>

 **) Pay attention to the release and ordering information in PRINCE -> Operating System http://vil.mch.fsc.net/vil/pc/vil/primergy/overview/prince/index_en.htm

 ***) Supply over distribution or procurement from FSC VP BC Software

Various Software Configurators and release lists (OS-Matrix / System Management / Security) can be obtain under the following addresses:

for internal users: http://vil.mch.fsc.net/vil/oc/special/primergy/index_en.htm
 for partners: http://vilpart.fujitsu-siemens.de/vil/oc/special/primergy/index_en.htm

Continue with PRIMERGY HW configurator


Start PRIMERGY TX150 S4

SW Configurator EM64T

with OEM-Software
for PRIMERGY Server

without OEM-Software
for PRIMERGY Server


Later use of OEM operating system software is not allowed, apart from few VMware add-ons


 For all SW products please refer to the corresponding software configurator accessible via the Extranet under Configuration & Tools, -All configurations, -Software, URL see below.


only EM64T	Microsoft - Software: W
	- Windows Server 2003, x64 Standard Edition x64 Enterprise Edition - Additional loose Client-Access-Lizenzen (CALs)


only EM64T	Linux - Software: L *) **)
	- SuSE Linux Enterprise Server - Red Hat Enterprise Linux

Manageability Software: V**)
- RemoteView Software - RemoteView Service Board - RemoteView Diagnosis

 Details eg. version numbers are published in the separate SW-Configurator

 *) Pay attention to release information on datasheet under <http://www.primecluster.com>

 **) Pay attention to release and order information in PRINCE -> Operating System http://vil.mch.fsc.net/vil/pc/vil/primergy/overview/prince/index_en.htm

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Continue with PRIMERGY HW configurator

Section | Basic unit



System unit consisting of:

- * Housing including standard power supply (no redundancy)
- * Sliding screen with lock (only for floorstand version)

Systemboard with:

- * 7 PCI slots:
 - 1x PCIe x 1
 - 1x PCIe x 4 (x8 Slot)
 - 1x PCI-X 66 long (3,3V)
 - 1x PCI-X 66 (3,3V) ZCR Slot
 - 1x long / 2x short 32Bit / 33MHz (5V)
- * 4 memory slots for up to 8GB (PC4200) registered DDR II RAM (ECC), max. 2GB modul per slot
- * 1 drive bay 3.5" occupied by 1 floppy disk 1.44MB 1" height (optional)
- * 3 Einbauplätze 5,25" für bedienbare Laufwerke
- * 4 bays 1" for hot plug SCSI HD)
- * ATI Range XL Graphic controller 8MB
- * Intel Broadcom (5721) 10/100/1000 Mb/s on-board
- * 1 x Fast-IDE (ATA) Controller on-board (for 1x 2 devices)
- * 1-channel Ultra 320 SCSI Controller LSI 1020A on-board with HW RAID IME (IME = Integrated Mirroring Enhanced)

Options:

- * Hot plug PS or a second redundant hot plug PS version can be configured by ordering the appropriate upgrade option
- * LSI Zero Channel RAID option, simultaneous use of HD and Tape Drive possible

Cables:

1. IDE cable for CD/DVD
2. With SCSI variant wide LVD SCSI cable for connection of the HD backplane and two accessible drives

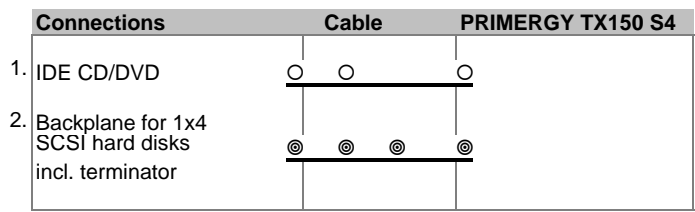
PS/2 mouse (only for floorstand version)

ServerStart packet incl. ServerBooks CD, ServerSupport CD and ServerView

External Interfaces:

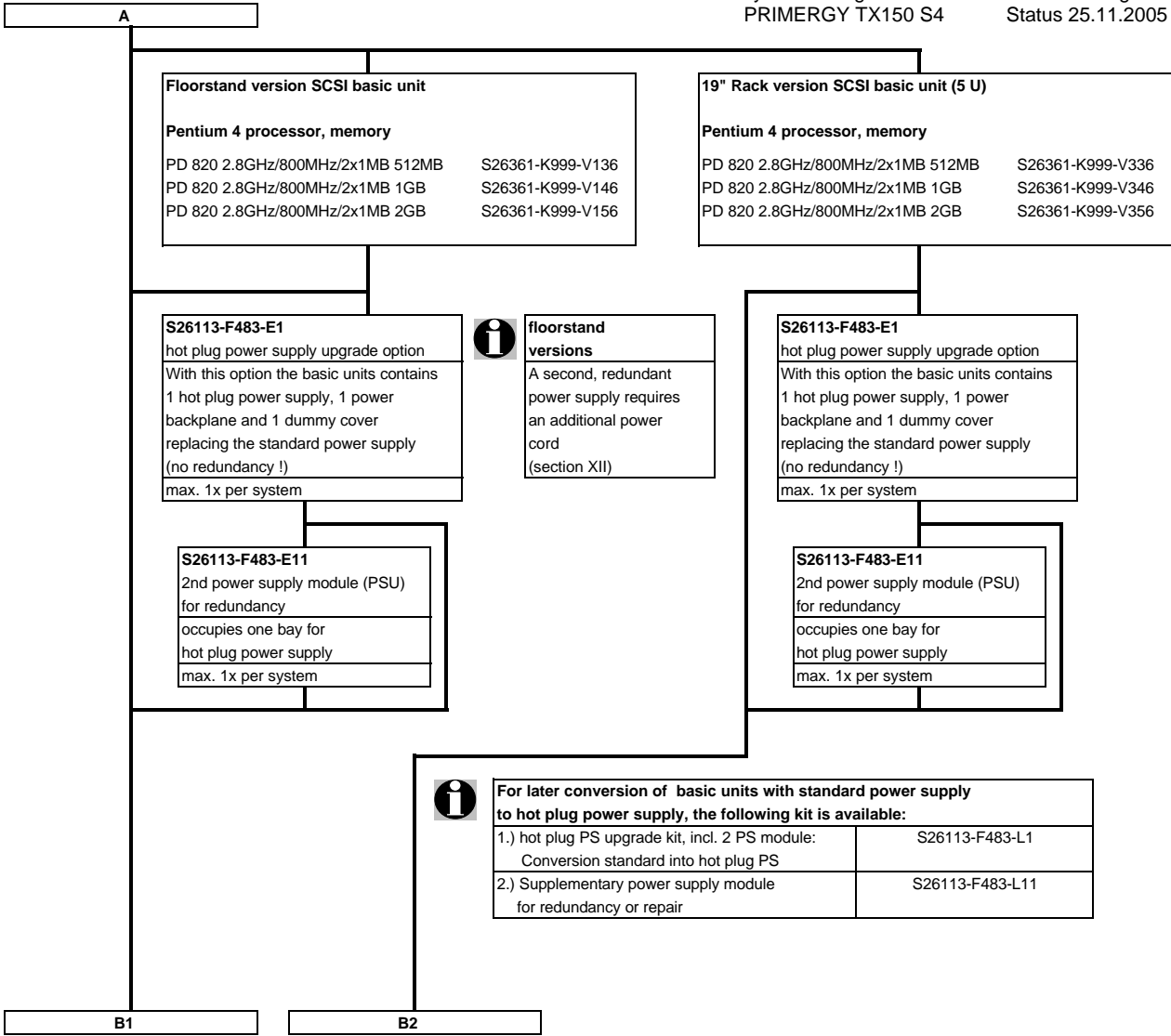
- 2x RS-232-C (serial, 9 pins)
- 1x Centronics (parallel, 25 pins, EPP/ECP compatible)
- 1x keyboard (PS/2)
- 1x mouse (PS/2)
- 1x VGA (15 pins)
- 1x USB 2.0 on front and 2x USB 2.0 on rearside
- 1x LAN RJ45

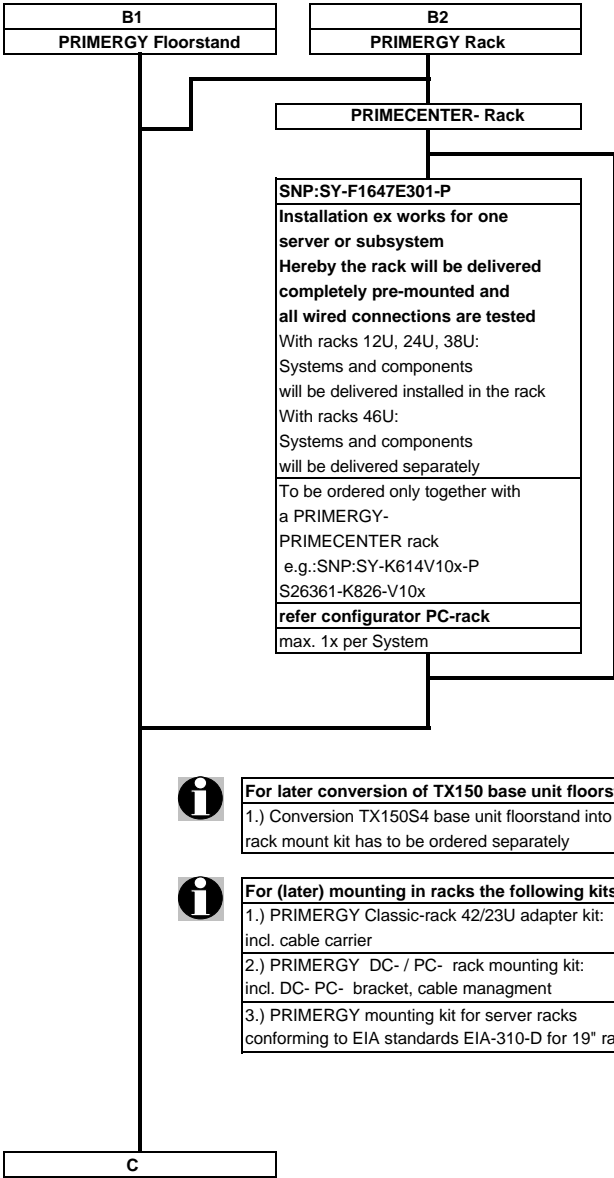
Cables included in basic unit



- Key:
- 68pins
 - ⊗ 68 or 50pins
 - IDE
 - X terminator

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SNP:SY-F1647E301-P
Installation ex works for one server or subsystem
Hereby the rack will be delivered completely pre-mounted and all wired connections are tested
 With racks 12U, 24U, 38U:
 Systems and components will be delivered installed in the rack
 With racks 46U:
 Systems and components will be delivered separately
 To be ordered only together with a PRIMERGY-PRIMECENTER rack
 e.g.:SNP:SY-K614V10x-P
 S26361-K826-V10x
refer configurator PC-rack
 max. 1x per System



"rack-mounting ex factory"
 This service is to be ordered once per installable server/storage subsystem, in order to get the server/storage subsystem mounted into the PRIMERGY racks. In case of the 46 U PRIMERGY rack, this service has to be ordered, to get the mounting kits and the cables installed.



For later conversion of TX150 base unit floorstand into base unit rack the following kit is available

1.) Conversion TX150S4 base unit floorstand into base unit rack rack mount kit has to be ordered separately	S26361-F2618-L240
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For (later) mounting in racks the following kits are available:

1.) PRIMERGY Classic-rack 42/23U adapter kit: incl. cable carrier	S26361-F1331-L300
2.) PRIMERGY DC- / PC- rack mounting kit: incl. DC- PC- bracket, cable management	S26361-F2734-L32
3.) PRIMERGY mounting kit for server racks conforming to EIA standards EIA-310-D for 19" racks.	S26361-F2734-L32

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Section II Processor

Section III Memory

i There are 2 memory banks with 2 DIMM slots each.
Single channel memory configuration allow maximum flexibility:
 Additional memory can be configured as single memory modules.
Dual channel memory configurations for maximum performance:
 For optimum performance memory has to be configured in pairs of memory modules with identical size.

↓ 3x ↑	S26361-F3000-E513 Main memory 512MB DDR2 533/PC2-4200 ub ECC consisting of one module occupies one bank max. 3x per system	S26361-F3000-E514 Main memory 1GB DDR2 533/PC2-4200 ub ECC consisting of one module occupies one bank max. 3x per system	S26361-F3000-E515 Main memory 2GB DDR2 533/PC2-4200 ub ECC consisting of one module occupies one bank max. 3x per system

Section IV Graphics

i ATI Rage XL (8MB)

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Section V Accessible drives



There are 3x 5.25" bays for accessible drives:
 - 1x 5.25" bay is occupied by a DVD-/CD- respectively a CD-RW drive
 - 2 x 5.25" bays remaining, can be occupied by 2x accessible drives



Setup TX150 S4 by **ServerStart** is supported with following configurations:
no DVD, no CD:
 remote installation only (PXE service & DHCP server required)
built in CD/DVD:
 UNC Network share reachable or USB Floppy or MemoryBird connected



One of the following **USB** devices **must be used** for integrating the drivers during installation process if no automatized (e.g. Serverstart / Altiris / RIS / ADS / ...) installation is done:

1) FDD USB (external): external USB FDD (USB cable included)	S26391-F264-L226
2) USB Memorybird: Memorybird 256 MB	S26391-F6046-L256
Memorybird 1GB	S26391-F6046-L24

S26361-F2575-E1
 Floppy disk drive 1"
 Connector: 26pin
 incl. description (Ger/US)
 1" * 3.5", anthracite bezel
 max. 1x per system

2x

SNP:SY-F2234E1-A
 DVD-ROM ATAPI
 incl. description (Ger/US)
 1.6 x 5.25", anthracite bezel
 max. 2x per system

S26361-F3148-E1
 DVD-RW 16x super multi drive
 all formats, DUAL/DL, DVD-RAM
 only W2K, W3K and Linux
 1.6 x 5.25", anthracite bezel
 max. 1x per system

2x

S26361-F3157-E3
 Tape drive LTO2HH Ultrium
 200GB, 24MB/s, U160 SCSI
 Connector: HD68
 without cable
 incl. description (Ger/US)
 data and cleaning cartridge
 1.6 * 5.25", anthracite bezel
 max. 1x per system

2x

S26361-F2849-E3
 Tape drive VXA-2
 80GB, 6MB/s, U2W SCSI
 Connector: HD68
 without cable
 incl. description (Ger/US)
 data and cleaning cartridge
 1.6 x 5.25", anthracite bezel
 max. 2x per system

S26361-F2848-E3
 Tape drive DDS Gen5
S26361-F2848-E31 (only for OBDR)
 DDS-G5 for One button dis. recov.
 36GB, 3MB/s, U2W SCSI
 Connector: HD68
 without cable
 incl. description (Ger/US)
 data and cleaning cartridge
 1.6 x 5.25", anthracite bezel
 max. 2x per system

E

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S26361-F2814-E6
 68-Pin Kit for accessible drives
 Cable with Terminator
 To connect acc. drives to
 separate SCSI controller
 max. 1x per system



Backup drive and hard disk should run on separate channels



If internal HDD's are connected at the RAID controller
 (not IME/ZCR), then for internal accessible drives
 the cable S26361-F2814-E6 must be ordered additionally!

Section VI Hard Disk Drives

4x

S26361-F3121-E173
 Hard disk 73GB in 1" carrier
 10000rpm, <5,5ms, 8MB Cache
Ultra 320 SCSI (320MB/s)
 Interface: Wide SCA (80-pins)
 hot plug/hot replace tray
 occupies 1" bay
 SCSI/RAID controller necessary
 max. 4x per system

S26361-F3121-E114
 Hard disk 146GB in 1" carrier
 10000rpm, <5,5ms, 8MB Cache
Ultra 320 SCSI (320MB/s)
 Interface: Wide SCA (80-pins)
 hot plug/hot replace tray
 occupies 1" bay
 SCSI/RAID controller necessary
 max. 4x per system

S26361-F3121-E130
 Hard disk 300GB in 1" carrier
 10000rpm, <5,5ms, 8MB Cache
Ultra 320 SCSI (320MB/s)
 Interface: Wide SCA (80-pins)
 hot plug/hot replace tray
 occupies 1" bay
 SCSI/RAID controller necessary
 max. 4x per system

S26361-F3121-E573
 Hard disk 73GB in 1" carrier
 15.000rpm, <4ms, 8MB Cache
Ultra 320 SCSI (320MB/s)
 Interface: Wide SCA (80-pins)
 hot plug/hot replace tray
 occupies 1" bay
 SCSI/ RAID controller necessary
 max. 4x per system

S26361-F3121-E514
 Hard disk 146GB in 1" carrier
 15.000rpm, <4ms, 8MB Cache
Ultra 320 SCSI (320MB/s)
 Interface: Wide SCA (80-pins)
 hot plug/hot replace tray
 occupies 1" bay
 SCSI/ RAID controller necessary
 max. 4x per system

F

Section VII SCSI-Controller

i All internal cables and adapters are included within the basic units and components respectively

i **Cabeling priorities:**

internal HDs are cabled according to following priorities.
 (Prio 1 - 3):

- 1.) For a configuration without any Disk Array Controller and without zero channel RAID**
 the onboard U320 Controller is connected to the internal HDs.
- 2.) For a configuration with a 2-channel Disk Array controller (without zero-channel RAID)**
 One channel will be connected with the internal hard disks.
 The second channel is externally available.

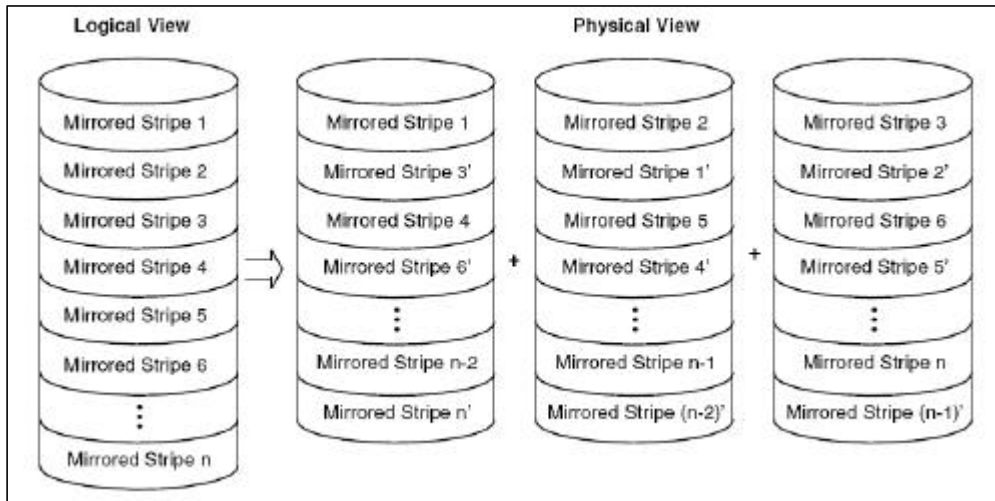
internal backup devices are cabled according to following priorities.
 (Prio 1 - 2):

- 1) For a configuration without additional SCSI controller**
 the onboard U320 controller is connected to internal backup devices
- 2) For a configuration with Adaptec SCSI Card 29160 S26361-F2399-E2 (without SCSI 160 controller S26361-F2644-E11)**
 this controller is connected to internal backup devices

A. on-board SCSI-controller for accessible drives and SCSI-HDs

1-channel Ultra 320 SCSI on-board controller; included as standard.

Example for IME with 3 data devices:



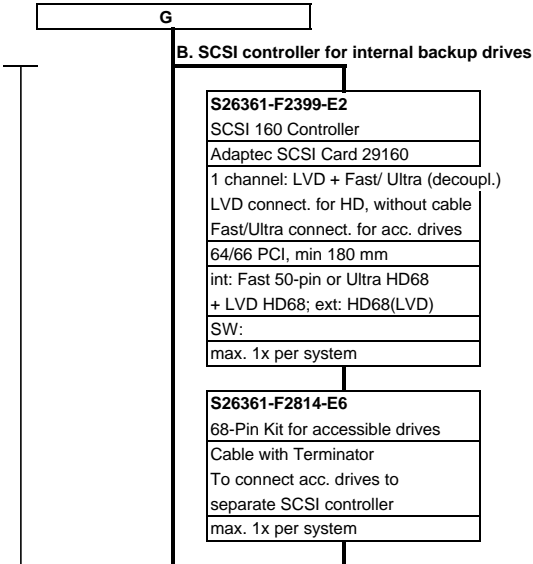
LSI Integrated Mirroring Enhanced (IME) is a RAID 1 implementation (no RAID 0 support). It can be operated also with an odd number of hard disks (max. one RAID 1 Set). There are, depending on system, up to 6 hard disks, including a hot spare disk, possible. Supportet are only the operating systems Windows2000/2003 as well as SuSE and RedHat Linux.

All internal cables and adapters for the basic unit and for components are included.

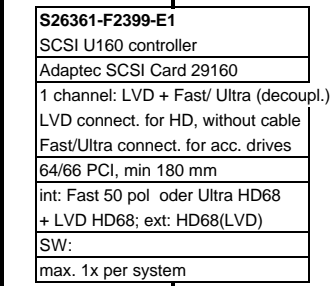
1x per TX150S4

T26139-Y3849-L1
 External on-board SCSI Interface
 Cable and external connector interface (HD68)
 occupies one connection panel
 max. 1x per system for ext.

i Only SX10 Backup is released for the external connection of the on-board SCSI controller and the 29160.
 Cable sold separately not mounted in factory.
 Use this cable only if on-board controller is not used otherwise (eg. S26361-F2814-E6)



C. SCSI controller for external drives and peripheral devices

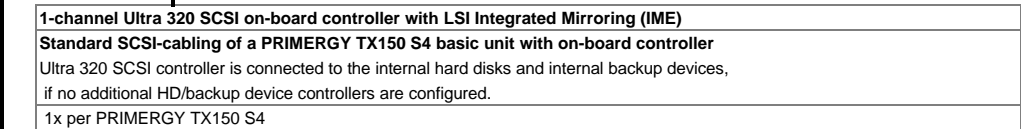


i Only SX10 Backup is for external connection at the SCSI controller.

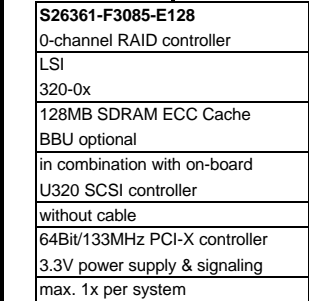
Section VIII Disk Array

max. 4x

D. LSI - Controller

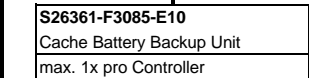


**D. zero-channel RAID controller (320-0x) for internal Disk Array
and additional RAID controllers for internal / external Disk Array**



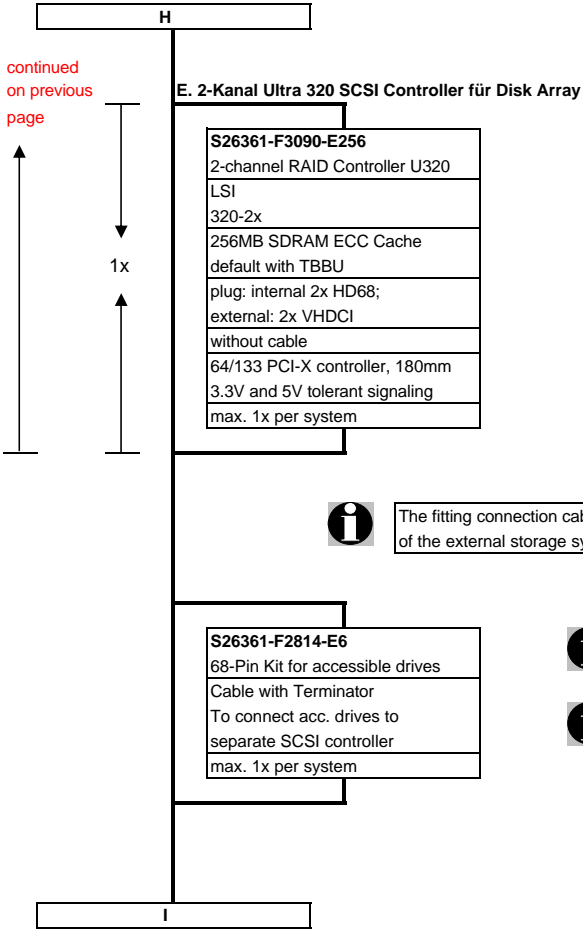
Zero channel RAID controller
LSI must be installed in the
blue marked bay.

With zero channel RAID controller
the IME function is no longer
available.



to be continued on next page

H



i The fitting connection cables can be found in the configurator of the external storage system and / or rack.

i Backup drive and HDD should run on separate channels.

i If internal HDD's are connected at the RAID controller (not IME/ZCR), then for internal accessible drives the cable S26361-F2814-E6 must be ordered additionally!

I

Section IX Communication / Network

Gigabit Ethernet Contr. on-board
 Broadcom
 ext: for RJ 45-connector
 SW: AFT, VLAN, Fast Channel



The Intel LAN controllers 1000MT can be used with the on-board controller in Teaming Mode

4x

S26361-F3053-E1
 Gigabit Ethernet Contr. 1000TX
 Eth. Ctrl 1x1Gbit PCI-X Pro/1000MT Cu
 Intel PRO/1000 MT Server Adapter
 Adapter Teaming Support
 PCI-X (PCI64/133), min 165 mm
 ext: for RJ45-plug, Cat 5 connection with Cat 5 cabling
 SW: VLAN, Fast & Gbit Etherchannel
 max. 4x per system

S26361-F3142-E1
 Gigabit Ethernet Contr. 1000TX
 Eth. Ctrl 1x1Gbit PCI32 PRO/1000GT Cu
 Intel Pro/1000 GT Adapter
 PCI 32 (33/66MHz),
 ext: for RJ45-plug, Cat 5 connection with Cat 5 cabling
 SW: VLAN, Fast & Gbit Etherchannel
 max. 4x per system

S26361-F3011-E1
 Gigabit Ethernet Contr dual 1000TX
 Intel Pro/1000MT dual Server Adapter
 Adapter Teaming Support
 PCI-X (PCI64/133), min 163 mm
 ext: for RJ45-plug, Cat 5 connection with Cat 5 cabling
 SW: VLAN, Fast Etherchannel
 max. 2x per system

S26361-F1809-E2
 ISDN S₀ Controller PCI
 Eicon Diva Server BRI-2M 2.0
 Incl. S₀-connector
 occu. short PCI slot min. 170 mm
 SO-Interface
 max. 2x per system

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Section X System management options

S26361-F2425-E103
RSB S2 LP 3HU
 RemoteView Service Board S2
 Low Profile Version with 3 U bracket
 for one **standard** PCI-slot
 incl. cables and RV SW
 max. 1x per system

S26361-F2425-E305
RSB S2 LP external power supply
 RemoteView Service Board S2
 low profile external power supply
 including power cable
 with Euro- and Euro socket connector

Section XI Miscellaneous

S26361-F1652-L4
 Modem external 56kbps (V.90)
 MultiTech
 MT5643ZBA-Global
 international approval
 incl. 2m Telephon cord RJ11/RJ11
 Adapter Plug RJ11/TAE
 Serial Interface cable DB25m / DB9f
 AC-Adapter w. German Power Cord
 occupies one COM port
 max. 1x per system



In connection with rack configurations
 the install variant of the modem
 (S26361-F1652-E4) has to be ordered
 (see rack configurator)

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Section XII Country specific / rack specific options

i A country specific power cord has to be ordered for all floorstand versions:
 - once per basic unit and an additional second cable
 - if an second hot plug, redundant power supply modul is ordered.

max.
2 x

PRIMERGY TX150 S4 Floorstand

PRIMERGY TX150 S4 Rack

Power cord for following countries:
 1,8 m, grey

T26139-Y1740-E10	D, A, B, F, NL, FIN, S, N, E, P, RUS, TR
T26139-Y1742-E10	USA, Canada
T26139-Y1743-E10	Switzerland
T26139-Y1744-E10	UK, Ireland
T26139-Y1745-E10	Italy
T26139-Y1746-E10	Denmark
T26139-Y3850-E10	No power cord as order option

i Country specific power cords are not required for rack versions, except for USA & Canada. Power cords are shipped in a rack version with inlet connector for non-heating apparatus. (1x with Standard PSU, 2x with hot plug upgrade)

i **T26139-Y1742-E10 USA, Canada**
 For shipments to USA&Canada, you have to order one power cord (1,8m, grey) per power supply.

i Attention: For connection of a monitor to the system an additional country specific power cord has to be ordered as option.

Power cord for optional monitor connection for the following countries:
 1.8m, grey

T26139-Y1740-L10	D, A, B, F, NL, FIN, N, S, E, P, RUS, TR
T26139-Y1742-L10	USA, Canada
T26139-Y1743-L10	Switzerland
T26139-Y1744-L10	UK, IR
T26139-Y1745-L10	Italy
T26139-Y1746-L10	Denmark

Powercord 3-way splitter 1M to 3F
 0.78m, grey
 T26139-Y3692-L1
 Adapter for the connection of up to 3 PS-modules or up to 2 PS-modules and one monitor to the mains connection.
 Both, standard and hot plug power supplies, are supported.

i **Other options and Peripherals**
 For other options refer to the section "Product-specific options". These options are supplied loose with the shipment.
 For suitable peripherals for this product refer to the section "Peripherals/communication".

Option for Floorstand

keyboards for floorstand versions for following countries:

S26381-K397-E110	USA / international
S26381-K397-E120	Germany
S26381-K397-E140	France
S26381-K397-E155	Sweden / Finland
S26381-K397-E165	United Kingdom
S26381-K397-E180	Spain
S26381-K397-E185	Italy

End PRIMERGY TX150 S4

